BS MATHEMATICS

GE COURSES

- Understanding the Self
- Readings in Philippine History
- The Contemporary World
- Mathematics in the Modern World
- Purposive Communication
- Art Appreciation
- Science, Technology and Society
- Ethics
- Komunikasyon sa Akademikong Filipino
- Pagbasa at Pagsulat Tungo sa Pananaliksik
- Masining na Pagpapahayag
- Life and Works of Rizal

PHYSICAL EDUCATION AND NSTP

- PE 1 Physical Fitness
- PE 2 Rhythmic Activities
- PE 3 Recreational Games
- PE 4 Team Sports
- ROTC

CORE COURSES

- Fundamentals of Computing
- Calculus I, II, III
- Fundamental Concepts of Math
- Abstract Algebbra
- Advance Calculus 1
- Linear Algebra
- Probability
- Advance Calculus 2
- Differential Equations 1
- Statistical Theory
- Modern Geometry
- Elementary Number Theory
- Numerical Analysis
- Complex Analysis

NON-MATH FOUNDATIONAL COURSES

- General Physics 1
- General Chemistry
- Statistics

MATHEMATICS ELECTIVES

- Algebraic Geometry
- Differential Geometry
- Projective Geometry

QUALIFIED ELECTIVES/COGNATES

- Cognate 1
- Cognate 2
- Elective 1
- Elective 2

THESIS/SPECIAL PROBLEM

- Research 1
- Research 2

INSTITUTIONAL COURSES

- Foreign Language 1
- Foreign Language 2
- Foreign Language 3
- Foreign Language 4
- Orientation to WIS Guiding Principles
- Career Planning and Development
- Review, and Comprehensive Exams

INTERNSHIP

- On-the-Job Training

BS MATHEMATICS

PERFORMANCE INDICATORS

- Undertake an independent study of an unfamiliar topic and present an accurate and in-depth discussion of the results of the investigation both orally and in writing.
- Represent a given problem by a mathematical model and use this to obtain a solution to the given problem.
- Apply the appropriate techniques in solving mathematical problems.
- Break down a complicated problem into simpler parts.
- Adapt known methods and tools in solving new problems.
- Discuss important breakthroughs in the solution of real-world problems where mathematics played a significant role.
- Submit a paper or thesis that contains proofs of mathematical statements based on rules of logic.
- Assess the validity of the mathematical reasoning in the works of others and identify errors and gaps, if any.
- Given a true mathematical statement, questions and investigates truth of the converse or inverse statements.
- Able to propose conjectures, investigate their truth or falsity, and write rigorous proofs of the investigation.
- Given a survey, expository or research paper, is able to recreate proofs and arguments contained in the paper, provide examples or give illustrations, and propose generalizations of results.
- Able to prepare a well-written research paper (thesis or special project paper) that organizes and presents a body of mathematics in a detailed, interesting and original manner.
- Able to give an oral presentation of results of the research paper before peers and teachers.

PROGRAM OUTCOMES

- Gain mastery in the core areas of mathematics: algebra, analysis, and geometry.
- Demonstrate skills in pattern recognition, generalization, abstraction, critical analysis, synthesis, problem-solving and rigorous argument.
- Develop and enhance perception of the vitality and importance of mathematics in the modern world including inter-relationship within math and its connection to other disciplines.
- Appreciate the concept and role of proof and reasoning and demonstrate knowledge in reading and writing mathematical proofs.
- Make and evaluate mathematical conjectures and arguments and validate their own mathematical thinking.
- Communicate mathematical ideas orally and in writing using clear and precise language.